

JUL 21 2006

REMARKS

Claims 1-29 remain in the application.

Claims 1-10, 12, 20 and 27 are allowed or allowable.

Claims 11, 14, 15, and 17 were rejected under §103(a) as unpatentable over Calma in view of Baur.

Calma shows a test fixture having several movable probes 30 with movable pin bodies 19 that are axially movable toward a device under test. Baur discloses a connector module body having numerous connector elements fixed to the body, each connector element having oppositely protruding pins that do not move. An electrical component is fixed to the connector element at a central location remote from both of the pin ends.

The rejection of claim 11 is in error because not all of the claim elements are disclosed in the cited references, because there is inadequate teaching or motivation to make the proposed combination, and because the references teach away from the proposed combination.

Neither cited reference discloses a spring biased pin including an electrical component proximate to the tip. Calma lacks any such component, and Baur has a component that is remote from both pin tips, on a fixed pin, not a movable spring biased one. Baur is incorrectly cited as having a component proximate to the tip, because the Baur component is essentially as far as possible from either tip. Even if there were a motivation to look to Baur for putting a component on a pin, there is nothing in Baur to suggest putting it near the tip. In fact, Baur essentially consists of two pins pointed in opposite directions, with the component connected to the rear end of each pin, remote from each tip. Accordingly, there is no disclosure in the cited references of a spring biased probe pin with an electrical component proximate to the tip.

The motivation asserted by the action: "to guard against overvoltages etc." is inadequate because there is no indication that the primary reference sought to be modified suffers from overvoltage problems. Calma is a test device, very unlike the connector adapter disclosed by Baur. There is no indication that Calma requires overvoltage protection, and even if there were, there is no reason to believe that such protection is required near the tips of moving probes. If the device under test by Calma's test device were a source of overvoltage, there is nothing to

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require that a pin, sleeve, spring, or other simple conductive element leading to the test circuitry be protected.

A motivation to provide overvoltage protection would lead to the commonsense solution of providing it at the input of the test device, and not in the impractical location of the probe pin. If the Calma test device were the source of overvoltage, and protection of the device under test was desired, similar conventional protection would suffice. Only if the pins, sleeves, springs, or other inert electrical devices were the source of overvoltage, could there be even an arguable motivation to provide overvoltage control on the probe pins.

Accordingly, even if Calma were motivated to adopt overvoltage protection, it would not do so by including an electrical component proximate to the tip of the spring biased probe pin. As noted above, Baur teaches installing a component remote from pin tips. Moreover, the teachings of Baur are inapplicable to the movable spring biased probe pins of Calma. Baur is a large, solid connector terminal with essentially no moving parts. It provides some electrical function on certain connector lines having connector pins on opposite sides, but does not appear pertinent to testing, probes, or any kind of spring biased contact for contacting electrical circuit. Therefore, even a motivation to improve Calma would not look to remote technology having little apparent applicability.

The references teach away from the proposed combination because Calma requires spring biased compliance for controlled contact of a circuit, and means for sequentially contacting different terminals, as disclosed at column 5, lines 54 through 67. Baur provides no such movement or compliance, and its adoption would render Calma nonfunctional. Further, even if the pin assembly of Baur were substituted for the pin of Calma, there is no evidence that this would be functional, practical, or even beneficial. Moreover, as noted above, this would still provide a component that was remote from the pin tips. In addition, Calma teaches away from the proposed adoption of components on the pin, because this would require extensive and complicated engineering, would weaken the freely extending pins (as opposed to the protected and supported Baur component), and would limit presumably desired miniaturization.

Claims 12-20 depend from claim 11 and should be allowable for the above reasons and because of the features set forth therein.

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Claim 12 is listed in the first rejection as rejected, and is also listed as allowable subject matter, and is thus presumed allowable.

Claim 14 should be allowable for the additional reason that the cited reference does not disclose any element 36 as asserted, and moreover because there is no evidence that any sleeve component in the cited reference is electrically connected to a conductor on the body. The action cites Calma's element 4 as the body, but if this were conductive and connected to the sleeves of the Calma pins, it would render the device nonfunctional by shorting together each of the contacts.

Claim 15 should be allowable for the additional reason that the action fails to point out to where the cited reference discloses all of the claimed features. Claim 15 recites more than just a component between the first and second portions.

Claim 17 should be allowable for the additional reason that the office action provides no support for the assertion that a the first and second portions have flanges that are spaced apart and connected to the electrical component. The reference appears to disclose a component of having one lead connected to a bore 23, and another lead connected to the end of the spring element to the 50.

Claims 13, 16 and 18 were rejected as unpatentable over Calma and Baur in view of Bender.

Claim 18 should be allowable for the additional reason that the action incorrectly denies the patentable significance of the dimensional limitation claimed. The dimensional limitation is significant, as noted in applicant's specification at paragraph 24.

Claim 19 was rejected under §103(a) as unpatentable over Calma in view of Bender and further in view of Hadwin. The identical rejection of the prior action is copied, without in any way addressing applicant's arguments, which are asserted again. First, the distance between the component and the tip in Hadwin is longer than the pitch. Moreover, the Hadwin device has essentially only one probe having a component, so that the "plurality" limitation is not disclosed, and thus the distance from a ground plane contact lacking a component is not properly a "pitch".

Claim 21-23 were rejected under §103(a) as unpatentable over Hadwin in view of Baur. Hadwin discloses an electrical probe with a spring biased pin 26 reciprocating in a spring-loaded sheath 28. An electrical component 34 is connected to the fixed rear end of the sheath (away

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from the pin end), with the component providing a serial connection between the sheath and a transmission line 18. The electrical component is not part of nor directly connected to the pin. The Hadwin capacitor is positioned away from the pin, beyond the fixed sleeve 28, and does not move. Thus, Hadwin does not disclose a movable, biased pin that includes a capacitor.

Similarly, Baur's component is connected to fixed elements, and does not move.

Claim 21 should be allowable because neither cited reference discloses a capacitor included on a movable pin. In addition, for the reasons noted above with respect to claim 11, there is inadequate teaching or motivation to make the proposed combination, the references are of relatively remote technology inapplicable to each other, and because the references teach away from the modification as proposed. Accordingly, claim 21 should be allowable.

Claims 22-29 depend from claim 21 and should be allowable for the above reasons and because of the features set forth therein.

Claims 24, 25, 28 and 29 were rejected under §103(a) as unpatentable over Hadwin in view of Baur. However, the argument in the action refers to Bender, not Baur. The rejection is traversed for the reasons discussed in previous actions, in that the asserted motivation is inadequate. Applicant's prior arguments have not been addressed, and the rejection is simply repeated. In addition, the rejection of claim 24 is traversed for the additional reasons that the Bender and Hadwin teaching is at most arguably to position a component rearward of the entire tip, and not between front and rear portions. Moreover, in both cited references, the electrical component is fixed, and does not move with any movable element.

The rejection of claim 26 is traversed because the reference is incorrectly citing a shoulder as a flange. Even with the benefit of hindsight, there is no suggestion of how one may practically connect these surfaces to an electrical component, will when the function of the cited reference requires that other elements be connected between the shoulders.

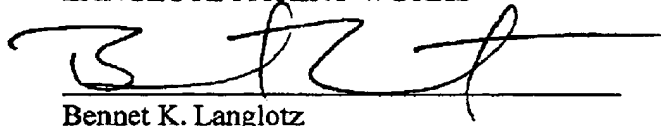
The remaining rejections are traversed for the reasons set forth in applicant's prior amendments.

The application should now be in condition for allowance. Reconsideration of the application is respectfully requested.

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Respectfully submitted,
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